AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method for permanently decreasing the immediate water-contact angle of ~~rendering~~ a substrate surface, wherein said substrate surface comprises ~~containing~~ a channel, having ~~with~~ a depth of ~~<~~≦ 1000μm, to serve as ~~intended to form~~ a liquid transportation system and ~~being~~is made ~~in~~ from a plastic material ~~more hydrophilic comprising:~~, said method comprises

treating the substrate surface with a gas plasma of a non-polymerizable gas, wherein the intensity of the plasma is selected so that the substrate surface after treatment ~~becomes~~ has a permanently ~~more hydrophilic.~~decreased immediate water-contact angle compared to an untreated substrate surface.

2. (Previously presented) The method according to claim 1, wherein the plasma intensity is ≥ 5 W/cm^3/min.

3. (Currently Amended) The method according to claim ~~2~~1, wherein a power of ~~>~~≧ 250 W and a gas flow of ~~<~~≦ 50 cm^3/min are applied to create the intensity of the plasma.

4. (Currently Amended) The method of claim 1, wherein the plastic material comprises an immediate water-contact angle of ~~>~~≧ ~~20~~30° and the plasma treatment conditions are set so that the immediate water-conduct angle after plasma treatment and a subsequent wash with pure water/ethanol ~~becomes~~ is < 30°.

5. (Currently amended) The method of claim 1, wherein the plastic material comprises ~~is~~ a polymer comprising an unsaturated monomer~~(s)~~ and/~~or~~ a condensation polymer~~(s), wherein said condensation polymer(s) comprises monomer(s) having two or more groups selected from the group consisting of amino groups, hydroxy groups and carboxy groups.~~.

6. (Previously presented) The method of claim 1, wherein the plasma is induced by radiowaves, microwaves, or a combination thereof.

7. (Previously presented) The method of claim 1, wherein the plasma gas is selected from the group consisting of oxygen, nitrogen, noble gas, or a mixture thereof.

8. (Previously presented) The method of claim 1, wherein subsequent to the treating step, the surface of the substrate is derivatized to exhibit anion exchanging groups, cation exchanging groups, amphoteric groups, hydroxy groups, bioaffinity groups, or chelating groups.

9. (Canceled)

10. (Currently Amended) A substrate surface, which is made of a plastic material and~~,~~ which has been plasma treated, said substrate surface comprises a channel having a depth of ≤ 1000 μm to serve as a liquid transportation system and ~~comprising a surface in uncoated form having~~ an immediate water-contact angle of ≦~~<~~ 30°, wherein said water-contact~~–~~angle is changed less than ± 20% and/or less than ± 5° upon washing with a ~~pure~~70%w/w ethanol/water mixture.

11. (Currently amended) The substrate surface of claim 10, wherein the plastic material is a polymer comprising an unsaturated monomer~~(s)~~ and/or a condensation polymer~~(s), wherein said condensation polymer(s) comprises monomer(s) having two or more groups selected from the group consisting of amino groups, hydroxy groups and carboxy groups~~.

12. (Currently amended) The substrate surface of claim 10, wherein the surface before having been gas plasma treated exhibits an immediate water-contact angle > 30°.

13. (Canceled)

14. (Canceled)

15. (Canceled)

16. (Canceled)

17. (Currently Amended) A method for culturing anchorage-dependent cells and non-anchorage dependent cells that in a part of their life cycle require attachment to a substrate surface comprising performing the culturing of the cells in contact with a substrate surface which is made of a plastic material and has with an immediate water-contact angle of

≦< 30° that is changed less than 20% and/or less than 5° upon washing with a 70% w/w ethanol/water mixture, said culturing is preformed in a chamber providing said substrate surface which is present in a liquid transportation system of a microfabricated device comprising a channel having a depth of ≤ 1000μm in said chamber.

18. (Currently Amended) The method of claim 17, wherein the substrate surface having an immediate contact angle of ≤ 30° of said substrate surface ~~has been~~is obtained by the gas plasma treatment method defined in claim 1.

19. (Currently Amended) The method of 17, wherein the cells are anchorage dependent and the substrate surface enables at least 30 % of the plated ~~anchorage-dependent~~ cells to adhere to the substrate surface.

20. (Currently Amended) The method of claim 17, wherein at most 15 % of the culture medium is serum.

21. (Currently Amended) The method of claim 17, wherein culturing is taking place during a time period permitting the number of cells to be at least duplicated.

22. (Canceled)

23. (Previously Presented) The method according to claim 1 further comprising the step of washing the surface subsequently with a pure solvent selected from the group consisting of water, a water-miscible solvent and mixtures thereof.

24. (Previously Presented) The method according to claim 5, wherein said polymer is a copolymer.

25. (Currently amended) The method according to claim 5, wherein said unsaturated monomer~~(s)~~ is an alkene/alkadiene or a vinyl aryl compound.

26. (Previously presented) The method according to claim 25, wherein said alkene/alkadiene is selected from the group consisting of acids, esters, amides, and nitriles containing one or more alkene groups.

27. (Currently Amended) The substrate surface of claim 10, wherein said polymer is a copolymer.

28. (Currently Amended) The substrate surface of claim 11, wherein said unsaturated monomer~~(s)~~ is an alkene/alkadiene or a vinyl aryl compounds.

29. (Currently Amended) The substrate surface of claim 28, wherein said alkene/alkadiene is selected from the group consisting of acids, esters, amides, and nitriles containing one or more alkene groups.

30. (Currently Amended) The substrate surface of claim 11, wherein said polymer material is cross-linked.

31. (Currently Amended) The substrate surface of claim 11, wherein said polymer material is a mixture of two or more polymers or copolymers.

32. (New) The method of claim 5, wherein said condensation polymer comprises a monomer having two or more groups selected from the group consisting of an amino group, a hydroxy group and a carboxy group.

33. (New) The substrate surface of claim 11, wherein said condensation polymer comprises a monomer having two or more groups selected from the group consisting of an amino group, a hydroxy group and a carboxy group.

34. (New) The method of claim 1, wherein the treatment comprises removal of loosely held compounds after the contact with the gas plasma.

35. (New) The method according to claim 1 wherein the treatment comprises washing the substrate surface with a polar liquid after the contact with the gas plasma.

36. (New) The method according to claim 1, wherein the treatment comprises washing with a solvent selected from the group consisting of water, water-miscible solvents and mixtures thereof after the contact with the gas plasma.